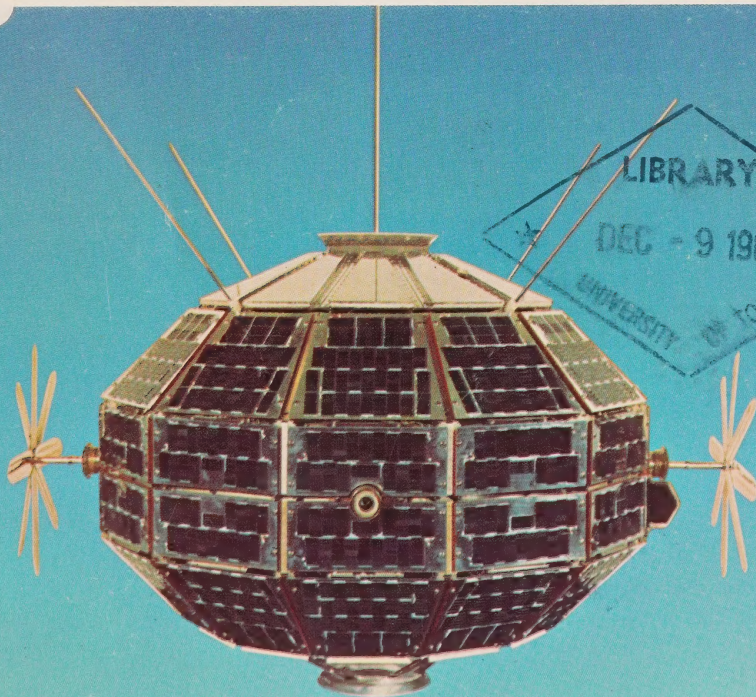



CANADIAN OPPORTUNITIES

THE PROFESSIONS

Station Division

The Alouette II with its 240-foot dipole antenna, partially extended and fitted with petal-like spin sustainers. Four telemetry antennas project from the top.





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PROFESSIONAL IMMIGRATION NEEDED

Controversy has flared in academic circles recently concerning who discovered North America. While this argument flourishes as an intellectual exercise, an ever increasing number of professional immigrants annually are “discovering” Canada — the largest country in North America.

In 1967, some 31,000 professionals — an increase of more than 8,000 over the previous year — arrived in Canada. There has been an increase each year in their numbers since 1961. From 1946 to 1967, more than 185,000 professional immigrants landed in Canada.

In comparison with most European nations, Canada is still an embryonic state. Its destiny has not yet been fully shaped, but its potential as one of the world's most fortunate nations is clearly evident.

Blessed with an abundance of natural resources, Canada's economic growth is among the highest in the world. In 1967 its Gross National Product (the measurement of the value of all goods and services produced) was some 61 billion dollars, an increase of 6.75 per cent over 1966. The national output in real terms rose 3.0 per cent in 1967. It is the fifth leading trading nation in the world.

In 1964, of every 100 workers employed

in Canada, 26 were in manufacturing, 27 in service industries, 16 in retail and wholesale trade, nine in agriculture, and seven each in the construction and transportation industries. The remaining five industries — fishing, forestry, mining, public utilities, and finance (including insurance and real estate) together employed eight workers out of every hundred.

The nation is gearing for an even greater drive toward industrialization. Rapid growth in production has resulted in heavy demand for skilled and professional workers. New jobs for these workers are being created every year.

Leading Canadian economists have stated that the country's already high standard of living can be substantially increased, without danger of inflation, if it uses its manpower, capital and resources more efficiently. The basic economic issue facing the nation today is the need for skilled manpower.

Much has already been done to up-grade the labour force. Various federal and provincial agencies have pooled their efforts in a concerted campaign to provide skilled workers for industry's needs. In recent years, enrolment in secondary schools has skyrocketed; classes in technical schools have tripled; training of the unemployed has increased by sevenfold; and Canada is now retaining its workforce faster than any coun-

try in the world. In 1967, its universities graduated about 50,000 students — an increase of almost 15 per cent over the previous year.

Despite these efforts, there are still many opportunities for skilled workers and the outlook for professionals is encouraging for those with drive and ambition. Business and industry, and universities, are all offering attractive salaries for their talents.

Opportunities for Professionals

Newcomers account for more than 12 per cent of Canada's professional workforce. In some professions their numbers are even more impressive. The 1961 Census of Canada showed that they accounted for one-third of the country's architects, mechanical engineers, and physical and occupational therapists; one-fourth of civil and electrical engineers and physical scientists; and about one-fifth of chemical engineers, physicians, surgeons and economists.

So much for the past. What are Canada's present requirements for professionals?

Although more and more Canadians are graduating from universities each year, the demand for their services normally exceeds

Laser research and development at the National Research Council, Ottawa.



supply. For persons with postgraduate degrees, the job situation is even brighter.

The following brief survey of the opportunities in certain professions in Canada should give you a general picture of the employment situation. For detailed information on your particular profession, consult your nearest Canadian Immigration Office.

Architecture

The Ontario Association of Architects has stated that not only is there a serious shortage of architects today, but the number of students enrolling in architecture is far short of the future requirements of industry. The current shortage in Ontario alone is estimated at 400.

Most graduates enter practice with established firms before going into business for themselves. Good employment opportunities also exist with government and industrial concerns.

Chemistry

The accelerated expansion of the physical output of Canada's chemical industry has placed chemists at a premium.

A wide range of positions are available to them. Government research projects concerned with nuclear energy, fisheries and forestry products, food and drugs and other

research programs all require highly competent chemists.

Chemists are also required as teachers with high schools and universities, and in the quality control laboratories of various industries.

Physics

The demand for physicists in Canada is almost unlimited, with numerous openings in industrial and government laboratories, in universities and in meteorology. Canada's secondary schools offer top salaries and a rewarding way of life for physics teachers.

Teachers

Canada's growing population and the tendency of children to acquire more education than was the case in the past, has resulted in excellent opportunities for qualified teachers at all levels of the educational system.

To fill their needs, local school boards are ranging farther and farther afield in their recruitment efforts. Both the experienced and newly graduated teachers are keenly sought.

Various education associations are concerned about the shortage of high school teachers with specialist qualifications. They report that specialists in mathematics, science, home economics, and commercial work are in the greatest demand. They have observed, however, that increased emphasis is being

given throughout the country to the upgrading of teachers. In-service programs and courses are being organized by departments of education, teacher's organizations, universities and school boards. Summer school programs for teachers have been increased, and in some provinces, departments of education are giving credits to teachers who complete approved courses organized by school boards and teachers.

Engineering and Applied Science

Canada is not producing enough engineers as the demand continues to exceed the supply, according to the Engineering Institute of Canada. In 1962, the major national employers of engineers were able to fill about 80 per cent of their requirements. Two years later, less than 70 per cent of the required number were recruited.

Although the majority of chemical engineers are employed in Ontario and Quebec, the rapid development of industries everywhere has resulted in opportunities in all ten provinces. Most are employed in the chemical process industries or the resource extractive industries. A postgraduate degree is necessary for most research positions and is mandatory for university teaching.

The Canadian Council of Professional Engineers reports that electrical engineers

are much sought after. A variety of employment is open to them — in the electrical design and manufacturing fields, in transportation, communications, and with public utilities. In addition, the electronic computing devices field offers exciting and challenging positions.

For geological engineers and geologists employment prospects are excellent as these professions have been in short supply in Canada for the past few years. Both the federal government and private Canadian companies have trouble in finding qualified geologists for their exploration programs.

Geologists with postgraduate training and summer experience in the field are in most demand. About 50 per cent of geologists in Canada are in this category.

Similar opportunities exist for other engineering disciplines, such as metallurgical and mining.

Dentistry

Canada now has more than 6,200 dentists, but as the population expands, the demand for their services increases annually. In 1961 the country had one dentist for every 3,036 persons. In 1965 it was one for every 3,095 persons.

The average earnings for dentists is among the highest of all professional classifications.



Table I—1968 University Graduates

Estimated Monthly Starting Salaries

These estimates of the monthly starting salaries of 1968 graduates were based on information obtained directly from the larger

national employers and from Placement and Career Planning offices. The estimates were obtained before graduation and the commencement of employment.

Discipline	Bachelors \$ per month	Masters \$ per month	Doctors \$ per month
General Arts (Pass Degree)	500	—	—
General Science (Pass Degree)	515	—	—
Honours Biology	550	655	820
Honours Chemistry	570	665	870
Honours Economics	535	635	825
Honours Geology	600	675	815
Honours Mathematics	580	670	800
Honours Mathematics and Physics	570	650	850
Honours Physics	585	675	830
Honours Psychology	510	615	780
Honours Sociology	500	615	785
Chemical Engineering	615	695	840

A young Canadian contractor and his chief architect (left), a former resident of the United Kingdom, study the scale model of a new subdivision.

Discipline	Bachelors \$ per month	Masters \$ per month	Doctors \$ per month
Civil Engineering	610	685	850
Electrical Engineering	610	690	850
Engineering Physics	610	630	845
Mechanical Engineering	620	685	865
Metallurgy & Metallurgical Engineering	620	695	835
Mining Engineering	630	710	—
Architecture	615	—	—
Agriculture (Honours Degree)	565	650	820
Forestry and Forestry Engineering	580	675	—
Commerce and Business Administration	550	715	—
Commerce for CA Articles only	480	—	—
Education	530	650	940
Home Economics	505	600	—
Library Science	530	—	—
Nursing Degree (with R.N.)	440	—	—
Pharmacy	680	—	—
Physiotherapy	450	—	—
Law	560	—	—
Dentistry (D.D.S.)	750	—	—

Table II*Canadian Taxpayers by Occupation — 1964*

Professionals (Self Employed)	Average Income \$
Doctors & Surgeons	21,474
Lawyers & Notaries	17,282
Engineers & Architects	16,801
Dentists	14,909
Accountants	13,021

Table III*Median Annual Earnings and Median Years Since Bachelor Graduation, 1963,
For Certain Professions*

Specialization	Median Annual Earnings \$	Median Years Since Bachelor Graduation
Natural Science		
Biology	8,700	13.8
Chemistry	10,100	16.8
General	7,700	9.5
Geology	10,000	13.1
Mathematics	9,300	12.3
Mathematics & Physics	10,100	16.1
Physics	10,000	13.8
Other	9,600	14.3
Total, Natural Science	9,400	13.8
Veterinary Medicine	8,700	13.1

Note: These statistics were supplied by the Federal Department of Labour.



A medical team performing a delicate open-heart operation.

Medicine

Opportunities for a career in medicine in Canada were never brighter. The Canadian Medical Association states that by 1975, 1,500 new doctors a year will be required to maintain the current physician-population ratio of about one doctor for every 900 persons. At the present time, Canada graduates about 850 doctors a year.

Salaries

The preceding tables should be useful in estimating the salary you may expect to receive in Canada. You will note that table one pertains to salaries for new graduates, while tables two and three give a breakdown of the average earnings of certain professionals.

Earnings cited in tables two and three are for 1964 and 1963, respectively, as no later official government statistics are available.

Professional Qualifications

When you visit your nearest Canadian Immigration Office, an experienced counselling officer will advise you if it is necessary to have a licence to practice your profession in Canada. You may also obtain literature which outlines these requirements in great detail.

Those of you who live in non-English or

non-French speaking countries, should be aware of the fact that your fluency in either of these languages will have a great bearing on your career in Canada. Most major centres in Canada, however, have facilities for language instruction, and you may obtain self-teaching material from the province in which you settle.

There is also another very good reason for discussing your employment prospects with the Immigration Counselling Officer. Prior to their postings, most of these officers have toured Canada from coast to coast to discuss Canada's manpower requirements with senior government and industry officials. When posted, the Immigration Service provides them with information on current employment developments throughout Canada. Therefore, in most cases they can provide immediate answers to your questions. If they are unable to provide specific information, they will contact the appropriate source. If you wish, they will also give you the names and addresses of professional associations and individual firms which you may contact on your own initiative.

There are a large number of professional associations in Canada which require their members to belong to the appropriate provincial association. Usually the associations are autonomous provincial bodies exercising

provincial jurisdiction. Some associations may, however, form national groups which do not have authority in provincial matters. This is a complicated subject, and you should ask the Immigration Counselling Officer to discuss the matter in detail.

Advertising

More and more Canadian firms are sending senior officials overseas to recruit professional workers. Openings with these firms are well advertised in leading national and business newspapers. A large number of professional newcomers to Canada have answered such advertisements — a periodical look at the classified section of your paper may bring such an opportunity to your attention.

Most Canadian Immigration Offices abroad have copies of Canada's major newspapers, and you are encouraged to look through these for information on employment opportunities. They will also give you a good insight into the cost of accommodation, food, clothes, and various consumer products in Canada.

A Country on the Move

The face of Canada is constantly changing. New industries are being created, older ones

expanded. Its major cities reflect the tempo of activity, as giant skyscrapers dot their skylines, and they expand their boundaries to take in large slices of the nearby countryside.

These are the tangible manifestations of change. But an even more impressive indication of the changing nature of the country is less discernible. This is the great emphasis being placed on the value of education as a key to meeting the requirements of Canada's technological society.

That this emphasis exists is shown by the growing number of young Canadians who remain in school through the primary and secondary courses; by the great increase in the number who go on to university; and by the almost revolutionary number of adults who resume their education or undertake further training, either on a full-time or part-time basis. Final confirmation is shown by the fact that current year expenditures on education of some \$4.5 billion are almost double the amount that was being spent five years ago.

With lower birth rates, enrolment in primary schools has been tapering off but because of the strong "stay in school" trend of recent years, high school enrolment continues to increase. In the last ten years, the high school population has more than



Meteorological forecasters discussing the day's weather.

doubled to a total of 1.3 million; while this surge is slackening somewhat, the fact is that today 80 per cent of those 14-17 years old remain in school as compared to less than 50 per cent as recently as 1952.

University enrolment has increased at an equally amazing rate. In 1952, for instance, only five per cent of those in the 18-24 age group had continued their studies; today, the proportion is 15 per cent and this is expected to increase to 20 per cent in another five years. The number of full-time students at universities has increased from 90,000 to 268,000 in the last ten years and the end is not in sight.

Perhaps the most significant development in adult education in recent years has been the Occupational Training For Adults program introduced by the Federal Government. It is designed to help people meet the challenge of change by up-grading their work skills. Candidates must be at least one year past the school-leaving age of the province in which they live and have been out of school for one year. An immigrant can get training, including instruction in English or French if it is necessary for his employment, on the same conditions as a Canadian citizen. Under OTA, the Federal Government pays the cost of training and, under certain conditions, weekly living allowances,

ranging from \$35 to \$90 are payable.

Responsibility for education is assigned to the provinces in Canada. However, the federal government provides financial assistance, and in 1966 it announced a 60 million dollar annual increase in grants to universities. This brought the total federal annual grants earmarked for universities to 100 million dollars. In addition, universities receive financial assistance from various provincial and private sources.

With a generous system of university scholarships, bursaries, and interest free loans, the country is rapidly moving to the day when no deserving student will be denied a university education because of a lack of financial means.

Research and Development

The extensive utilization of advanced technology has made a significant contribution to the high standard of living enjoyed by Canadians. According to economists, the buoyant state of the nation's economy is largely attributable to the happy combination of men, capital and technical knowledge.

As a relatively new country with a vast area and a small population, it has been necessary for Canada to import not only

Wind tunnel built by the National Research Council aids research on vertical take-off and landing craft.



men and capital but also the most up-to-date technology. The nation has been fortunate in having this combination merge to form a dynamic instrument for progress. The readiness and ability of Canada to take advantage of the skills and technology developed in other lands has been a key feature of its economic development.

The creation of the National Research Council of Canada in 1917 was the first significant development in the nation's research facilities. From 1918 to 1939, there was a slow but steady growth in scientific and research activity in the universities, federal government laboratories and in a few industries. A tremendous impetus was given to research during World War II.

Since 1945 scientific activity in Canada has assumed massive proportions. The federal government established additional research agencies — the Defence Research Board and Atomic Energy of Canada — and greatly expanded the scope of NRC and other government research departments. Its expenditures for research and development in 1964 were ten times as great as that of 1945.

In 1962 Canada became the world's third country to have a space satellite in orbit. The "Alouette", designed and built by the Defence Research Board, was launched by

the United States to study the ionosphere and is still sending data back to the earth. In November 1965, "Alouette II" was orbited to conduct further studies of the ionosphere.

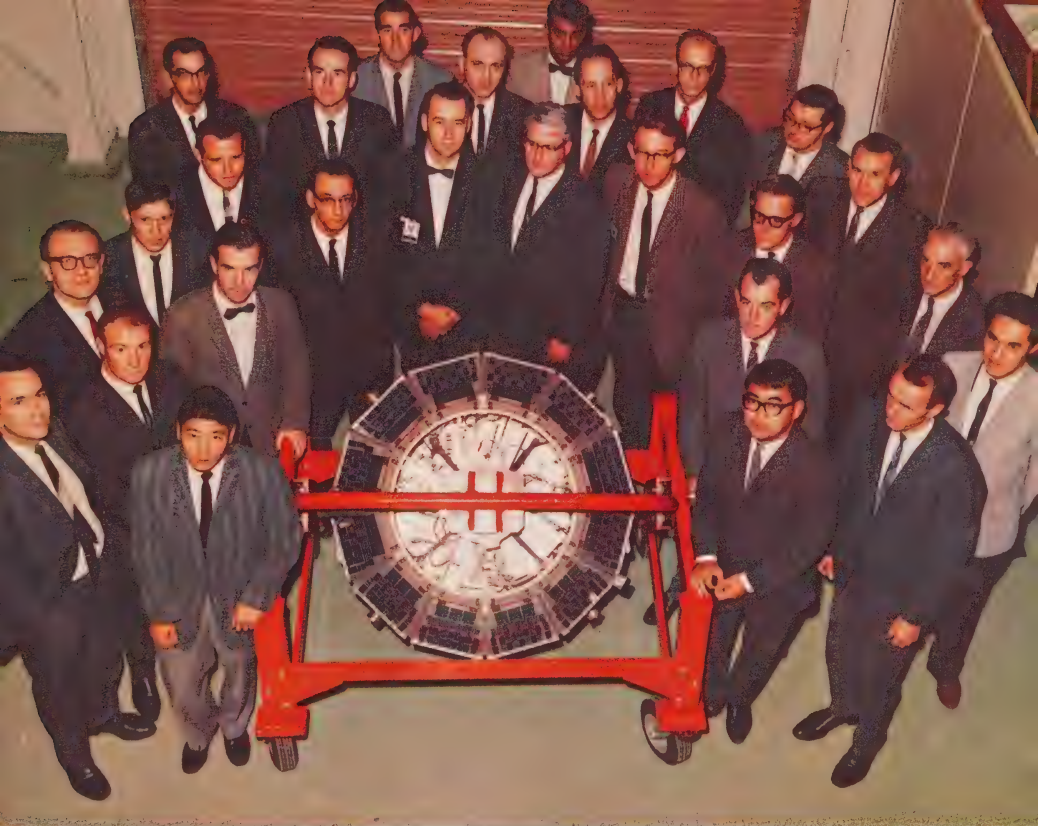
Canada has played a leading role in the development of the peaceful uses of atomic energy. It has developed two nuclear power plants for its own use and, as a joint project with India, through the Colombo Plan, it built the Canada-India Reactor.

In the past decade Canadian industry has greatly stepped up its research and development programs. To encourage industry to set its targets even higher, the federal government has introduced special programs. These include an income tax incentive scheme, direct assistance programs administered by NRC and the Defence Research Board, and a defence-development program now administered by the federal Department of Industry.

Recreation and Leisure

The scenic beauty of Canada is well known. Every region of the country shares in the possession of nature's gifts. Its mountains, lakes and rivers are like the country itself — large and rich.

Canada's varied climate offers a wide range of activities for the sportsman. In the summer and fall many Canadians desert the



The Canadian scientists who designed and fabricated the Alouette II.

cities for nearby cottages to fish, swim, boat, waterski or just to relax in the tranquil surroundings. Golf, tennis and a host of other activities are also popular summer and fall fare. In the winter and early spring, skiing, skating, bowling and curling attract thousands of participants.

Canada, of course, does not have the cultural attractions of Europe. But then it is a young country. A tremendous growth in cultural activities has blossomed in recent years, however. Indicative of this has been the achievements of such organizations as the Stratford Shakespearean Festival, le Theatre du Nouveau Monde and the National Ballet Company of Canada, all of which have won international recognition.

Art galleries, with notable collections of European and Canadian art, are located in major cities, and the National Gallery in Ottawa provides a focus for the visual arts with its magnificent collection and its sponsorship of travelling and local exhibitions.

The importance of the arts in Canada was recognized by the federal government in 1957 with the establishment of the Canada Council. Its function is to encourage promising artists through financial assistance.

Professional orchestras, theatres and ballet companies are found in most of the larger centres. In addition, the country is served by

public and private radio and television networks.

Newcomers have made a vital contribution to the arts in Canada. Many have gained international fame not only for themselves but for the country as well. They have shown great initiative in the establishment of professional companies where formerly none existed. A ballerina from England, Gweneth Lloyd, founded the Royal Winnipeg Ballet—the oldest professional ballet company in Canada. The nation's youngest ballet company, Les Grands ballets Canadiens, was founded by Ludmilla Chiriaeff, a former resident of Latvia. In opera, Dr. Arnold Walter of Austria played a leading role in the creation of the Canadian Opera Company.

Widespread Social Benefits

Canadians enjoy a wide variety of social benefits provided by the federal government, by the various provincial governments, and by private industry. The nation has the third lowest death rate in the world and the eighth highest birth rate of the more-developed countries of the world. In half a century the life expectancy for men has increased from 48 to 68 years and for women from 51 to 73 years.

Family Allowances

All children born in Canada, and all children of newcomers who have lived in Canada for one year, are eligible for family allowances which are paid by the federal government. For each child under 10, \$6 is paid monthly, and for each child between 10 and 16, \$8 is paid monthly. In addition, parents receive \$10 a month for each child, age 16 and 17, who is still in school. The allowances are not subject to income tax.

To aid the families of immigrants to Canada, the federal government gives assistance for one year in the form of allowances for children at the same rate as family allowances. Thus, in effect, children of immigrants receive family allowances from the time they arrive in Canada.

Hospital Care

Hospital insurance programs provide pre-paid hospital care in all provinces. In some provinces residents pay premiums to be eligible and in others the plan is financed primarily out of general revenue. The Immigration Medical Service provides free medical care to certain immigrants who become ill en route to their destination or while awaiting employment.

Medical Care

Traditionally Canadians have paid for their own medical care or purchased insurance to provide protection against medical costs and a high percentage are protected in this way. Several provinces operate medical care insurance programs paid for by personal premiums and government contributions. Plans are now underway in other provinces to operate health care programs which will provide protection against medical, and in some cases, dental expenses.

A number of provinces have developed programs under which free or substantially free services are provided for all residents suffering from specific diseases such as tuberculosis, mental illness, cancer, poliomyelitis and arthritis.

Voluntary Health Insurance Schemes

Many organizations and companies provide their employees with group insurance which includes life insurance and medical insurance. A small premium is sometimes paid by the employee to participate. In addition, there are many private companies which sell health insurance and insurance against accident or loss of pay.

Old Age Security Pensions

Persons aged 67 or over who have resided in Canada for at least 10 years prior to



A Dentist and his young patient.

their 67th birthday receive a pension of \$75 a month from the federal government. The age requirement for this pension will be reduced a year at a time in subsequent years until 1970 when it will be 65.

In addition, the federal government makes funds available to the provinces so that aged persons of proven need may have their pensions supplemented.

The Canada Pension Plan

In addition to pensions which employees receive from their company pension plans, where such a plan is in operation, the federal government in 1965 instituted the Canada Pension Plan to provide retirement pensions for all workers between 18 and 70. The Plan covers practically everybody who is working.

Briefly, the Plan provides seven benefits:

A pension for you when you retire;

A pension for you if you have to stop work because you are disabled;

Benefits for your children if you are disabled and cannot work;

A pension for your wife if she is widowed;

Benefits for your children if you die;

Pensions for disabled widowers;

A lump sum payment to your estate at your death.

The Plan is a contributory one. You, as an employee, contribute approximately 1.8 per cent of your earnings, and your employer pays the same amount. The retirement pension you will receive amounts to 25 per cent of what your annual earnings up to \$5,000 have averaged from age 18.

If you are earning \$5,000 or more a year, you would pay \$79.20 a year into the Plan. If when you retired at 65 your earnings had averaged at least \$5,000 annually, you would receive a monthly pension of \$104.17.

Self employed persons have to pay the complete premium.

For information about the other benefits listed, ask your Canadian Immigration Counsellor.

Private Pension Plans

In addition to the pension paid by the government, many companies have their own pension plans. Sometimes these company pensions are paid in full by the company but usually both company and employee make contributions to the pension fund. Schools and universities also have their own pension plans for teachers.

Mother's Allowances

When a family no longer has a breadwinner and the mother is unable to look after her children without assistance, a mother's allowance is provided by the province in which she lives.

General Assistance

General assistance, including emergency assistance, is available in all provinces to persons who are in need because of unemployment, illness or other reasons. Special arrangements are made for emergency aid to certain newcomers to Canada who have not yet acquired residence, usually a period of one year.

Newcomers Comment

There is no question that the decision to emigrate is a major one. No one should leave his country of birth before finding out as much as possible about his new home. Even then he will experience feelings of anxiety about his decision. This is only natural. He realizes that his new country will have different customs and ways of doing things. Friends and in many cases, relatives, will be left behind. The first days in the new country will be the most difficult. His early thoughts will likely be characterized by nostalgic memories of people and things back "home".

But many others of similar circumstances have preceded him to Canada. A number of professional newcomers to Canada have been interviewed in the hope that their advice and comments on the country might be useful to others about to make the big decision.

All felt that they were better off financially in Canada. They also found the work environment stimulating and that there was ample opportunity for advancement. One commented that a developing country appealed more to him than one already developed.

Canada is uncrowded, and good accommodation is generally readily available. Children have more room to play and develop in, and the country offers them a promising future, according to those interviewed.

What was their advice to other professionals? First, of course, find out as much as possible about the employment situation. Do not hesitate to discuss your situation with the nearest Canadian Immigration Counselling Officer. Also do not leave yourself financially strapped before setting out for Canada. Several of those interviewed had taken advantage of loans offered newcomers by the Canadian government. All endorsed the plan and stated that they had

no difficulty in paying back the loan. Your Immigration Counselling Officer will be pleased to describe the plan in detail.

Become involved in activities outside of the work environment as soon as possible. In most cases, the husband experiences less difficulty than his wife in adjusting. His wife may feel more remote, cut off from the mainstream of Canadian life. An engineer interviewed said that his wife was very discontented during her first weeks in Canada. He suggested that she learn to drive a car so that she could get away from home. She took his advice and he soon noticed a marked improvement in her outlook and she is now extremely active in women's groups and churchwork.

Several said they missed concerts and live theatre. But as one observed, "these things do exist in Canada, only you have to search a little harder for them."

Summing Up

Canada is a vast land, with an insatiable demand for the professional and highly skilled worker. Its economy is healthy, but it is not an El Dorado. Newcomers must be prepared to work hard to get ahead. Substantial rewards await the industrious immigrant — financial as well as the satisfaction he experiences in playing an important role in the development of the nation.



Acoustic research project at McGill University
in Montreal.

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